

WHAT IS CLAIMED IS:

1. A process of supplying data concerning an occurrence of an interface event affecting a device to at least one reference model having at least one listener, comprising steps of:

operating a monitor to detect the occurrence of the interface event;

maintaining a list of listeners accessible to the monitor; and

supplying data from the monitor to the listeners on the list in response to the occurrence of the interface event for use by the respective reference model.

2. The process of claim 1, further comprising:  
registering the listener with the monitor.

3. The process of claim 1, wherein the listener is instantiated in the reference model, the process further comprising:

configuring the listener to like inherit a listener interface,

transmitting a registration request to the monitor, and

entering a pointer to the listener in the list in response to the request.

4. The process of claim 3, further comprising:  
generating a first data structure by the monitor  
in response to the occurrence of an interface event,  
and

generating a private data structure for the  
reference model based on the first data structure and  
an event handler.

5. The process of claim 1, further comprising:  
generating a first data structure by the monitor  
in response to the occurrence of an interface event,  
and

generating a private data structure for the  
reference model based on the first data structure and  
an event handler.

6. The process of claim 1, wherein a plurality  
of monitors are operated for the occurrence of  
respective interface events, and the reference model  
is configured to perform procedures inherited from  
each monitor, whereby each monitor supplies data to  
the reference model concerning the respective  
interface event in a structure derived from the  
respective monitor, and the reference model  
interprets the data.

7. The process of claim 6, wherein a plurality  
of listeners are instantiated in the reference model,  
the process further comprising:

configuring the respective listener to like inherit the respective listener interface,

transmitting a registration request to each monitor, and

in each monitor, entering a pointer in a list accessible to the respective monitor.

8. The process of claim 1, wherein a plurality of reference models are each configured to perform procedures inherited from the monitor, whereby the monitor supplies data to the plurality of reference models concerning the interface event in a structure derived from the monitor, and each reference model interprets the data.

9. The process of claim 1, further comprising: interpreting the data by the reference model.

10. The process of claim 1, wherein the listener includes an event handler and the process further comprises:

generating a first data structure by the monitor in response to the occurrence of an interface event, and

generating a private data structure for the reference model based on the first data structure and the event handler.

11. Apparatus comprising:

- a listener interface for a monitor monitoring the occurrence of interface events affecting a device;
- at least one listener associated with a respective reference model, each at least one listener being responsive to a first data structure from the monitor for re-formatting the first data structure to a private data structure for the respective reference model, the at least one listener having like inheritance to the listener interface; and
- a listening post associated with the monitor having a pointer pointing to the at least one listener.

12. The apparatus of claim 11, wherein the listening post has a plurality of pointers associated with respective listeners in respective reference models, the monitor providing the first data structure to all of the listener entries,

and an event handler associated with each listener and responsive to the first data structure provide the respective private data structure to the associated reference model concerning the interface event.

13. The apparatus of claim 11, wherein the listening post further includes processes for registering and/or de-registering listeners.

14. A monitor and a reference model storing respective portions of a program for controlling the monitor to supply data to the reference model concerning an occurrence of an interface event affecting a device, the program comprising:

- code for operating the monitor for the occurrence of an interface event;

- code for maintaining a list of listeners accessible to the monitor; and

- code for operating the monitor to respond to the occurrence of an interface event to supply data to the listeners on the list in response to the occurrence of the interface event for use by the respective reference model.

15. The apparatus of claim 14, further comprising:

- code for configuring the listener to like inherit a listener interface,

- code for causing the reference model to transmit a registration request to the monitor, and

- code for entering a pointer in the list in response to the request.

16. The apparatus of claim 15, further comprising:

code for causing the monitor to generate a first data structure in response to the occurrence of an interface event, and

code for causing an event handler to generate the private data structure based on the first data structure.

17. The apparatus of claim 14, further comprising:

code for causing the monitor to generate a first data structure in response to the occurrence of an interface event, and

code for causing an event handler to generate the private data structure based on the first data structure.

18. The apparatus of claim 14, wherein a plurality of monitors are operated for the occurrence of respective interface events, whereby each monitor is programmed to supply data to the reference model concerning the respective interface event in a structure defined by the respective monitor.

19. The apparatus of claim 14, wherein a plurality of reference models are each configured to receive data from the monitor, whereby the monitor supplies data to the plurality of reference models

concerning the interface event in a structure defined by the monitor.

20. The apparatus of claim 14, further comprising:

code for causing the reference model to interpret the data.